



# FIG. 1A

10 20 30 40 50  
\* \* \* \* \*  
TG ACT TTG TAT ACT TAA CAA CAT CCT GTA GCC GGG TCT CAG GAC ATC AAG  
AC TGA AAC ATA TGA ATT GTT GTA GGA CAT CGG CCC AGA GTC CTG TAG TTC  
T L Y T \* Q H P V A G S Q D I K>  
60 70 80 90  
\* \* \* \* \*  
ATG AAA ATC CTT ATC TTG GTT GCA GCT GGG CTG CTG TTT CTG CCA GTC  
TAC TTT TAG GAA TAG AAC CAA CGT CGA CCC GAC GAC AAA GAC GGT CAG  
M K I L I L V A A G L L F L P V>  
100 110 120 130 140  
\* \* \* \* \*  
ACT GTT TGC CAA AGT GGC ATA AAT GTT TCA GAC AAC TCA GCA AAG CCA  
TGA CAA ACG GTT TCA CCG TAT TTA CAA AGT CTG TTG AGT CGT TTC GGT  
T V C Q S G I N V S D N S A K P>  
150 160 170 180 190  
\* \* \* \* \*  
ACC TTA ACT ATT AAG AGT TTT AAT GGG GGT CCC CAA AAT ACC TTT GAA  
TGG AAT TGA TAA TTC TCA AAA TTA CCC CCA GGG GTT TTA TGG AAA CTT  
T L T I K S F N G G P Q N T F E>  
200 210 220 230 240  
\* \* \* \* \*  
GAA TTC CCA CTT TCT GAC ATA GAG GGC TGG ACA GGA GCC ACC ACA ACT  
CTT AAG GGT GAA AGA CTG TAT CTC CCG ACC TGT CCT CGG TGG TGT TGA  
E F P L S D I E G W T G A T T T>  
250 260 270 280 290  
\* \* \* \* \*  
ATA AAA GCG GAG TGT CCC GAG GAC AGT ATT TCA ACT CTC CAC GTG AAT  
TAT TTT CGC CTC ACA GGG CTC CTG TCA TAA AGT TGA GAG GTG CAC TTA  
I K A E C P E D S I S T L H V N>  
300 310 320 330  
\* \* \* \* \*  
AAT GCT ACC ATA GGA TAC CTG AGA AGT TCC TTA AGT ACC CAA GTG ATA  
TTA CGA TGG TAT CCT ATG GAC TCT TCA AGG AAT TCA TGG GTT CAC TAT  
N A T I G Y L R S S L S T Q V I>  
340 350 360 370 380  
\* \* \* \* \*  
CCT GCC ATC TAT ATC CTG CTG TTT GTG GTT GGT GTA CCA TCC AAC ATC  
GGA CGG TAG ATA TAG GAC GAC AAA CAC CAA CCA CAT GGT AGG TTG TAG  
P A I Y I L L F V V G V P S N I>  
390 400 410 420 430  
\* \* \* \* \*  
GTG ACC CTG TGG AAA CTC TCC TTA AGG ACC AAA TCC ATC AGT CTG GTC  
CAC TGG GAC ACC TTT GAG AGG AAT TCC TGG TTT AGG TAG TCA GAC CAG  
V T L W K L S L R T K S I S L V>



## FIG. 1B

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      440      450      460      470      480
*   *   *   *   *   *   *   *   *   *
ATC TTT CAC ACC AAC CTG GCC ATC GCA GAT CTC CTT TTC TGT GTC ACA
TAG AAA GTG TGG TTG GAC CGG TAG CGT CTA GAG GAA AAG ACA CAG TGT
I   F   H   T   M   L   A   I   A   D   L   L   F   C   V   T>
      490      500      510      520      530
*   *   *   *   *   *   *   *   *   *
CTG CCA TTT AAG ATC GCC TAC CAT CTC AAT GGC AAC AAC TGG GTA TTT
GAC GGT AAA TTC TAG CGG ATG GTA GAG TTA CCG TTG TTG ACC CAT AAA
L   P   F   K   I   A   Y   H   L   N   G   N   N   W   V   F>
      540      550      560      570
*   *   *   *   *   *   *   *   *   *
GGC GAG GTC ATG TGC CGG ATC ACC ACG GTC GTT TTC TAC GGC AAC ATG
CCG CTC CAG TAC ACG GCC TAG TGG TGC CAG CAA AAG ATG CCG TTG TAC
G   E   V   M   C   R   I   T   T   V   V   F   Y   G   N   M>
580      590      600      610      620
*   *   *   *   *   *   *   *   *   *
TAC TGC GCT ATC CTG ATC CTC ACT TGC ATG GGC ATC AAC CGC TAC CTG
ATG ACG CGA TAG GAC TAG GAG TGA ACG TAC CCG TAG TTG GCG ATG GAC
Y   C   A   I   L   I   L   T   C   M   G   I   N   R   Y   L>
      630      640      650      660      670
*   *   *   *   *   *   *   *   *   *
GCC ACG GCT CAC CCT TTC ACA TAC CAG AAG CTG CCC AAA CGC AGC TTC
CGG TGC CGA GTG GGA AAG TGT ATG GTC TTC GAC GGG TTT GCG TCG AAG
A   T   A   H   P   F   T   Y   Q   K   L   P   K   R   S   F>
      680      690      700      710      720
*   *   *   *   *   *   *   *   *   *
TCC TTG CTC ATG TGT GGC ATA GTG TGG GTC ATG GTT TTC TTA TAC ATG
AGG AAC GAG TAC ACA CCG TAT CAC ACC CAG TAC CAA AAG AAT ATG TAC
S   L   L   M   C   G   I   V   W   V   M   V   F   L   Y   M>
      730      740      750      760      770
*   *   *   *   *   *   *   *   *   *
CTG CCC TTT GTC ATC CTG AAG CAG GAG TAC CAC CTC GTC CAC TCA GAG
GAC GGG AAA CAG TAG GAC TTC GTC CTC ATG GTG GAG CAG GTG AGT CTC
L   P   F   V   I   L   K   Q   E   Y   H   L   V   H   S   E>
      780      790      800      810
*   *   *   *   *   *   *   *   *   *
ATC ACC ACC TGC CAC GAT GTC GTC GAC GCG TGC GAG TCC CCA TCA TCC
TAG TGG TGG ACG GTG CTA CAG CAG CTG CGC ACG CTC AGG GGT AGT AGG
I   T   T   C   H   D   V   V   D   A   C   E   S   P   S   S>
820      830      840      850      860
*   *   *   *   *   *   *   *   *   *
TTC CGA TTC TAC TAC TTC GTC TCC TTA GCA TTC TTT GGG TTC CTC ATC
AAG GCT AAG ATG ATG AAG CAG AGG AAT CGT AAG AAA CCC AAG GAG TAG
F   R   F   Y   Y   F   V   S   L   A   F   F   G   F   L   I>

```



## FIG. 1C

```

      870      880      890      900      910
      *      *      *      *      *
CCG TTT GTG ATC ATC ATC TTC TGT TAC ACG ACT CTC ATC CAC AAA CTT
GGC AAA CAC TAG TAG TAG AAG ACA ATG TGC TGA GAG TAG GTG TTT GAA
P   F   V   I   I   I   F   C   Y   T   T   L   I   H   K   L>
      920      930      940      950      960
      *      *      *      *      *
AAA TCA AAG GAT CGG ATA TGG CTG GGC TAC ATC AAG GCC GTC CTC CTC
TTT AGT TTC CTA GCC TAT ACC GAC CCG ATG TAG TTC CGG CAG GAG GAG
K   S   K   D   R   I   W   L   G   Y   I   K   A   V   L   L>
      970      980      990      1000      1010
      *      *      *      *      *
ATC CTT GTG ATT TTC ACA ATT TGC TTT GCC CCC ACC AAC ATC ATA CTC
TAG GAA CAC TAA AAG TGT TAA ACG AAA CGG GGG TGG TTG TAG TAT GAG
I   L   V   I   F   T   I   C   F   A   P   T   N   I   I   L>
      1020      1030      1040      1050
      *      *      *      *      *
GTA ATC CAC CAT GCC AAC TAC TAC TAC CAC AAT ACC GAC AGC TTG TAC
CAT TAG GTG GTA CGG TTG ATG ATG ATG GTG TTA TGG CTG TCG AAC ATG
V   I   H   H   A   N   Y   Y   Y   H   N   T   D   S   L   Y>
1060      1070      1080      1090      1100
      *      *      *      *      *
TTT ATG TAT CTT ATT GCT CTG TGC CTG GGG AGC CTG AAT AGC TGC CTA
AAA TAC ATA GAA TAA CGA GAC ACG GAC CCC TCG GAC TTA TCG ACG GAT
F   M   Y   L   I   A   L   C   L   G   S   L   N   S   C   L>
      1100      1120      1130      1140      1150
      *      *      *      *      *
GAT CCA TTC CTT TAC TTT GTC ATG TCG AAA GTT GTA GAT CAG CTT AAT
CTA GGT AAG GAA ATG AAA CAG TAC AGC TTT CAA CAT CTA GTC GAA TTA
D   P   F   L   Y   F   V   M   S   K   V   V   D   Q   L   N>
      1160      1170      1180      1190      1200
      *      *      *      *      *
CCT TAG TCG GCA ATG GCA AGA CCA CTT TAG AGA CCA AGG AGA GAT ATC
GGA ATC AGC CGT TAC CGT TCT GGT GAA ATC TCT GGT TCC TCT CTA TAG
P   *   S   A   M   A   R   P   L   *   R   P   R   R   D   I>
      1210      1220
      *      *      *      *
TGG GAA GAC ATA CAT GCT TGG C
ACC CTT CTG TAT GTA CGA ACC G
W   E   D   I   H   A   W   X>

```



## FIG. 2A

```
      10      20      30      40      50
      *      *      *      *      *
CCATATGCTA ATATTCCTT TCAATTACAG GCATAAATGT TTCAGACAAC

      60      70      80      90     100
      *      *      *      *      *
TCAGCAAAGC CAACCTTAAC TATTAAGAGT TTTAATGGGG GTCCCCAAAA

      110     120     130     140     150
      *      *      *      *      *
TACCTTTGAA GAATTC---- ---TACAAC CTCCATGTGA ATAATGCTAC

      160     170     180     190     200
      *      *      *      *      *
CATGGGATAC CTGAGAAGTT CCTTAAGTAC CAAAGTGATA CCTGCCATCT

      210     220     230     240     250
      *      *      *      *      *
ACATCCTGGT GTTTGTGATT GGTGTACCAG CGAACATCGT GACCCTGTGG

      260     270     280     290     300
      *      *      *      *      *
AAACTCTCCT CAAGGACCAA ATCCATCTGT CTGGTCATCT TTCACACCAA

      310     320     330     340     350
      *      *      *      *      *
CCTGGCCATC GCGGATCTCC TTTTCTGTGT CACGCTGCCG TTTAAGATC-

      360     370     380     390     400
      *      *      *      *      *
-CCTACCATC TCAATGGCAA CAACTGGGTA TTTGGCGAGG TCATGTGCCG

      410     420     430     440     450
      *      *      *      *      *
GATCACCACG GTCGTTTTCT ACGGCAACAT GTA CTGCGCT A---TCCTGA

      460     470     480     490     500
      *      *      *      *      *
TCCTCACCTG CATGGGCATC AACCGCTACC TGGCCACGGC TCACCCTTTC

      510     520     530     540     550
      *      *      *      *      *
ACATACCAGA AGCTGCCCAA ACGCAGCTTC TCCATGCTCA TGTGTGGCAT

      560     570     580     590     600
      *      *      *      *      *
GGTGTGGGTC ATGGTTTTCT TATACATGCT GCCCTTTGTC ATCC---AAG

      610     620     630     640     650
      *      *      *      *      *
CAGGAGTACC ACCTCGTCCA CTCCGAGATC ACCACCTGCC ACGATGTCGT
```



## FIG. 2B

660	670	680	690	700
* *	* *	* *	* *	* *
CGACGCGTGC	GANTCCCCAT	CATCCTTCCG	ATTCTACTAC	TTCGTCTCCT
710	720	730	740	750
* *	* *	* *	* *	* *
TAGCATTCTT	TGGGTTCCCTC	ATCCCGTTTG	TGATCATCAT	CTTCTGTTAC
760	770	780	790	800
* *	* *	* *	* *	* *
ACGACTCTCA	TCCACAAACT	TAAATCAAAA	GATCNGATAT	GGCTGGGCTA
810	820	830	840	850
* *	* *	* *	* *	* *
CATCAAGGCC	GTCCTCCTCA	TCCTTGTAAG	TTTCACCATC	TGCTTCCCCC
860	870	880	890	900
* *	* *	* *	* *	* *
CCACCAAG--	----GATATC	TGGGAAGACG	TACATGCTTG	GCTGACTTGT
910	920	930	940	950
* *	* *	* *	* *	* *
GCATGGCACC	ATCAGCTCAA	TTTTTAATTT	TTTAATTTTA	ATTTAATTTA
960	970	980	990	1000
* *	* *	* *	* *	* *
ATTTTATGTT	TTTGAGACAG	AGCCTCACTG	TGTAGTCCTG	GCTGGCCTGG
1010	1020	1030	1040	1050
* *	* *	* *	* *	* *
CTGGTTCTCT	ATTTAGACCA	GGTTAGCCTT	GAATCACAG	AGATCTGCCT
1060	1070	1080	1090	1100
* *	* *	* *	* *	* *
GCTTCTGCCT	CCCAAGTGCT	GGGTTCAACC	AGGTCTGGCA	AGCGCTCCAT
1110	1120			
* *	* *			
TTTTCAGCTC	CTCTGCAACA	GTGC		



FIG. 3A

```

      10      20      30      40
      *      *      *      *      *
TGC TCC ATG ATT TTA CAG ATT TCA TAA CGT TTA AGA GAC GGG ACT CAG
ACG AGG TAC TAA AAT GTC TAA AGT ATT GCA AAT TCT CTG CCC TGA GTC
C S M I L Q I S * R L R D G T Q>
50      60      70      80      90
      *      *      *      *      *
GTC ATC AAA ATG AAA GCC CTC ATC TTT GCA GCT GCT GGC CTC CTG CTT
CAG TAG TTT TAC TTT CGG GAG TAG AAA CGT CGA CGA CCG GAG GAC GAA
V I K M K A L I F A A A G L L L>
100     110     120     130     140
      *      *      *      *      *
CTG TTG CCC ACT TTT TGT CAG AGT GGC ATG GAA AAT GAT ACA AAC AAC
GAC AAC GGG TGA AAA ACA GTC TCA CCG TAC CTT TTA CTA TGT TTG TTG
L L P T F C Q S G M E N D T N N>
150     160     170     180     190
      *      *      *      *      *
TTG GCA AAG CCA ACC TTA CCC ATT AAG ACC TTT CGT GGA GCT CCC CCA
AAC CGT TTC GGT TGG AAT GGG TAA TTC TGG AAA GCA CCT CGA GGG GGT
L A K P T L P I K T F R G A P P>
200     210     220     230     240
      *      *      *      *      *
AAT TCT TTT GAA GAG TTC CCC TTT TCT GCC TTG GAA GGC TGG ACA GGA
TTA AGA AAA CTT CTC AAG GGG AAA AGA CGG AAC CTT CCG ACC TGT CCT
N S F E E F P F S A L E G W T G>
250     260     270     280
      *      *      *      *      *
GCC ACG ATT ACT GTA AAA ATT AAG TGC CCT GAA GAA AGT GCT TCA CAT
CGG TGC TAA TGA CAT TTT TAA TTC ACG GGA CTT CTT TCA CGA AGT GTA
A T I T V K I K C P E E S A S H>
290     300     310     320     330
      *      *      *      *      *
CTC CAT GTG AAA AAT GCT ACC ATG GGG TAC CTG ACC AGC TCC TTA AGT
GAG GTA CAC TTT TTA CGA TGG TAC CCC ATG GAC TGG TCG AGG AAT TCA
L H V K N A T M G Y L T S S L S>
340     350     360     370     380
      *      *      *      *      *
ACT AAA CTG ATA CCT GCC ATC TAC CTC CTG GTG TTT GTA GTT GGT GTC
TGA TTT GAC TAT GGA CGG TAG ATG GAG GAC CAC AAA CAT CAA CCA CAG
T K L I P A I Y L L V F V V G V>
390     400     410     420     430
      *      *      *      *      *
CCG GCC AAT GCT GTG ACC CTG TGG ATG CTT TTC TTC AGG ACC AGA TCC
GGC CGG TTA CGA CAC TGG GAC ACC TAC GAA AAG AAG TCC TGG TCT AGG
P A N A V T L W M L F F R T R S>

```

FIG. 3B

```

      440      450      460      470      480
      *      *      *      *      *      *      *      *
    ATC TGT ACC ACT GTA TTC TAC ACC AAC CTG GCC ATT GCA GAT TTT CTT
    TAG ACA TGG TGA CAT AAG ATG TGG TTG GAC CGG TAA CGT CTA AAA GAA
    I  C  T  T  V  F  Y  T  N  L  A  I  A  D  F  L>
          490      500      510      520
          *      *      *      *      *      *      *
    TTT TGT GTT ACA TTG CCC TTT AAG ATA GCT TAT CAT CTC AAT GGG AAC
    AAA ACA CAA TGT AAC GGG AAA TTC TAT CGA ATA GTA GAG TTA CCC TTG
    F  C  V  T  L  P  F  K  I  A  Y  H  L  N  G  N>
530          540      550      560      570
      *      *      *      *      *      *      *
    AAC TGG GTA TTT GGA GAG GTC CTG TGC CGG GCC ACC ACA GTC ATC TTC
    TTG ACC CAT AAA CCT CTC CAG GAC ACG GCC CGG TGG TGT CAG TAG AAG
    N  W  V  F  G  E  V  L  C  R  A  T  T  V  I  F>
    580          590      600      610      620
      *      *      *      *      *      *      *
    TAT GGC AAC ATG TAC TGC TCC ATT CTG CTC CTT GCC TGC ATC AGC ATC
    ATA CCG TTG TAC ATG ACG AGG TAA GAC GAG GAA CGG ACG TAG TCG TAG
    Y  G  N  M  Y  C  S  I  L  L  L  A  C  I  S  I>
    630          640      650      660      670
      *      *      *      *      *      *      *
    AAC CGC TAC CTG GCC ATC GTC CAT CCT TTC ACC TAC CGG GGC CTG CCC
    TTG GCG ATG GAC CGG TAG CAG GTA GGA AAG TGG ATG GCC CCG GAC GGG
    N  R  Y  L  A  I  V  H  P  F  T  Y  R  G  L  P>
    680          690      700      710      720
      *      *      *      *      *      *      *
    AAG CAC ACC TAT GCC TTG GTA ACA TGT GGA CTG GTG TGG GCA ACA GTT
    TTC GTG TGG ATA CGG AAC CAT TGT ACA CCT GAC CAC ACC CGT TGT CAA
    K  H  T  Y  A  L  V  T  C  G  L  V  W  A  T  V>
          730      740      750      760
          *      *      *      *      *      *      *
    TTC TTA TAT ATG CTG CCA TTT TTC ATA CTG AAG CAG GAA TAT TAT CTT
    AAG AAT ATA TAC GAC GGT AAA AAG TAT GAC TTC GTC CTT ATA ATA GAA
    F  L  Y  M  L  P  F  F  I  L  K  Q  E  Y  Y  L>
770          780      790      800      810
      *      *      *      *      *      *      *
    GTT CAG CCA GAC ATC ACC ACC TGC CAT GAT GTT CAC AAC ACT TGC GAG
    CAA GTC GGT CTG TAG TGG TGG ACG GTA CTA CAA GTG TTG TGA ACG CTC
    V  Q  P  D  I  T  T  C  H  D  V  H  N  T  C  E>
    820          830      840      850      860
      *      *      *      *      *      *      *
    TCC TCA TCT CCC TTC CAA CTC TAT TAC TTC ATC TCC TTG GCA TTC TTT
    AGG AGT AGA GGG AAG GTT GAG ATA ATG AAG TAG AGG AAC CGT AAG AAA
    S  S  S  P  F  Q  L  Y  Y  F  I  S  L  A  F  F>
  
```



## FIG. 3C

```

      870      880      890      900      910
*   *   *   *   *   *   *   *   *   *
GGA TTC TTA ATT CCA TTT GTG CTT ATC ATC TAC TGC TAT GCA GCC ATC
CCT AAG AAT TAA GGT AAA CAC GAA TAG TAG ATG ACG ATA CGT CGG TAG
G   F   L   I   P   F   V   L   I   I   Y   C   Y   A   A   I>
      920      930      940      950      960
*   *   *   *   *   *   *   *   *   *
ATC CGG ACA CTT AAT GCA TAC GAT CAT AGA TGG TTG TGG TAT GTT AAG
TAG GCC TGT GAA TTA CGT ATG CTA GTA TCT ACC AAC ACC ATA CAA TTC
I   R   T   L   N   A   Y   D   H   R   W   L   W   Y   V   K>
      970      980      990      1000
*   *   *   *   *   *   *   *   *   *
GCG AGT CTC CTC ATC CTT GTG ATT TTT ACC ATT TGC TTT GCT CCA AGC
CGC TCA GAG GAG TAG GAA CAC TAA AAA TGG TAA ACG AAA CGA GGT TCG
A   S   L   L   I   L   V   I   F   T   I   C   F   A   P   S>
1010      1020      1030      1040      1050
*   *   *   *   *   *   *   *   *   *
AAT ATT ATT CTT ATT ATT CAC CAT GCT AAC TAC TAC TAC AAC AAC ACT
TTA TAA TAA GAA TAA TAA GTG GTA CGA TTG ATG ATG ATG TTG TTG TGA
N   I   I   L   I   I   H   H   A   N   Y   Y   Y   N   N   T>
1060      1070      1080      1090      1100
*   *   *   *   *   *   *   *   *   *
GAT GGC TTA TAT TTT ATA TAT CTC ATA GCT TTG TGC CTG GGT AGT CTT
CTA CCG AAT ATA AAA TAT ATA GAG TAT CGA AAC ACG GAC CCA TCA GAA
D   G   L   Y   F   I   Y   L   I   A   L   C   L   G   S   L>
1110      1120      1130      1140      1150
*   *   *   *   *   *   *   *   *   *
AAT AGT TGC TTA GAT CCA TTC CTT TAT TTT CTC ATG TCA AAA ACC AGA
TTA TCA ACG AAT CTA GGT AAG GAA ATA AAA GAG TAC AGT TTT TGG TCT
N   S   C   L   D   P   F   L   Y   F   L   M   S   K   T   R>
1160      1170      1180      1190      1200
*   *   *   *   *   *   *   *   *   *
AAT CAC TCC ACT GCT TAC CTT ACA AAA TAG TGA AAT GAT CTT AGA GAA
TTA GTG AGG TGA CGA ATG GAA TGT TTT ATC ACT TTA CTA GAA TCT CTT
N   H   S   T   A   Y   L   T   K   *   *   N   D   L   R   E>
1210      1220
*   *   *   *
CAA GGA CAG CCA TCA CAG AGA ACG
GTT CCT GTC GGT AGT GTC TCT TGC
Q   G   Q   P   S   Q   R   T>

```





## FIG. 4A

```
      10      20      30      40      50
      *      *      *      *      *
-ACAGGCATG GAAAATGATA CAAACAACCTT GGCAAAGCCA ACCTTACCCA

      60      70      80      90     100
      *      *      *      *      *
TTAAGACCTT TCGTGGAGCT CCCCCAAATT CTTTGAAGA GTTCCCCTTT

      110     120     130     140     150
      *      *      *      *      *
TCTGCCTTGG AAGGCTGGAC AGGAGCCACG ATTACTGTAA AAATTAAGTG

      160     170     180     190     200
      *      *      *      *      *
CCCTGAAGAA AGTGCTTCAC ATCTCCATGT GAAAAATGCT ACCATGGGGT

      210     220     230     240     250
      *      *      *      *      *
ACCTGACCAG CTCCTTAAGT ACTAAACTGA TACCTGCCAT CTACCTCCTG

      260     270     280     290     300
      *      *      *      *      *
GTGTTTGTAG TTGGTGTCCC GGCCAATGCT GTGACCCTGT GGATGCTTTT

      310     320     330     340     350
      *      *      *      *      *
CTTCAGGACC AGATCCATCT GTACCACTGT ATTCTACACC AACCTGGCCA

      360     370     380     390     400
      *      *      *      *      *
TTGCAGATTT TCTTTTTTGT GTTACATTGC CCTTTAAGAT AGCTTATCAT

      410     420     430     440     450
      *      *      *      *      *
CTCAATGGGA ACAACTGGGT ATTTGGAGAG GTCCTGTGCC GGGCCACCAC

      460     470     480     490     500
      *      *      *      *      *
AGTCATCTTC TATGGCAACA TGTA CTGCTC CATTCTGCTC CTTGCCTGCA

      510     520     530     540     550
      *      *      *      *      *
TCAGCATCAA CCGCTACCTG GCCATCGTCC ATCCTTTCAC CTACCGGGGC

      560     570     580     590     600
      *      *      *      *      *
CTGCCCAAGC ACACCTATGC CTTGGTAACA TGTGGACTGG TGTGGGCAAC

      610     620     630     640     650
      *      *      *      *      *
AGTTTTCTTA TATATGCTGC CATTTTTCAT ACTGAAGCAG GAATATTATC
```



## FIG. 4B

```
      660      670      680      690      700
      *      *      *      *      *      *
TTGTTTCAGCC AGACATCACC ACCTGCCATG ATGTTCACAA CACTTGCGAG

      710      720      730      740      750
      *      *      *      *      *      *
TCCTCATCTC CCTTCCAAC CTATTACTTC ATCTCCTTGG CATTCTTTGG

      760      770      780      790      800
      *      *      *      *      *      *
ATTCTTAATT CCATTTGTGC TTATCATCTA CTGCTATGCA GCCATCATCC

      810      820      830      840      850
      *      *      *      *      *      *
GGACACTTAA TGCATACGAT CATAGATGGT TGTGGTATGT TAAGGCGAGT

      860      870      880      890      900
      *      *      *      *      *      *
CTCCTCATCC TTGTGATTTT TACCATTTCG TTTGCTCCAA GCAATATTAT

      910      920      930      940      950
      *      *      *      *      *      *
TCTTATTATT CACCATGCTA ACTACTACTA CAACAACACT GATGGCTTAT

      960      970      980      990      1000
      *      *      *      *      *      *
ATTTTATATA TCTCATAGCT TTGTGCCTGG GTAGTCTTAA TAGTTGCTTA

      1010      1020      1030      1040      1050
      *      *      *      *      *      *
GATCCATTCC TTTATTTTCT CATGTCAAAA ACCAGAAATC ACTCCACTGC

      1060      1070      1080      1090      1100
      *      *      *      *      *      *
TTACCTTACA AAATAGTGAA ATGATCTTAG AGAACAAGGA CAGCCATCAC
```

AGA